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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/519,584

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Jun Fujii

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Kent E Baldauf
700 Koppers Building
436 Seventh Avenue
Pittsburgh, PA 15219-1818

EXAMINER

NGUYEN, HUY TRAM

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/519,584	Applicant(s) FUJII ET AL.	
	Examiner HUY-TRAM NGUYEN	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed October 17, 2008 have been fully considered but they are not persuasive.

2. Applicants amend Claim 1 to recite "... said catalyst layer **comprising** an exhaust gas purifying catalyst and silicon oxide, wherein... , and the exhaust gas purifying catalyst in the catalyst layer consisting of at least one noble metal selected from the group **consisting of** platinum, palladium and rhodium and activated alumina". Examiner interprets the amended claim 1 as the catalyst layer including an exhaust gas purifying catalyst consisting at least one noble metal from the group of platinum, palladium and rhodium and activated alumina, and **silicon oxide** and also can include other components (i.e. alkaline earth metallic oxide, cerium oxide, zirconium oxide) as disclosed in Tsuchitani reference (US Patent No. 5,756,057). The transitional term "comprising", which is synonymous with "including," "containing," or "characterized by," is inclusive or open-ended and does not exclude additional, unrecited elements or method steps. See, e.g., > Mars Inc. v. H.J. Heinz Co., 377 F.3d 1369, 1376, 71 USPQ2d 1837, 1843 (Fed. Cir. 2004). **MPEP 2111.03**

3. Applicants also assert that "Tsuchitani relates to a method for removal of nitrogen oxides from exhaust gas using a catalyst wherein the alkaline earth metals such as magnesium, calcium, strontium and barium or compounds thereof in the catalyst component are used as essential components" (**Remarks – Page 5**). Examiner disagrees with this assessment because on **Column 11, Line 61 - Column 12, Line 1**

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of Tsuchitani reference, it teaches that, "Generally, a) palladium, b) platinum and rhodium, c) palladium and rhodium or d) platinum, palladium and rhodium as noble metal components, a refractory inorganic oxide such as alumina, titania, or silica, and ceria are **essential catalytic components** for the three-way catalyst" and "This three-way catalyst **may additionally incorporate** therein zirconia and/or the oxide of a rare earth element other than cerium such as, for example, lanthanum oxide (La_2O_3)".

4. The peel strength of the exhaust gas purifying catalyst-supported member is considered inherent as long as the claimed components are met.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by **Shiraishi et al. (JP 05-200288 A) or Shiraishi et al. (JP 05-200287 A)**.

Regarding Claim 1, each Shiraishi et al. reference discloses an exhaust gas purifying catalyst-supported member comprising a metal carrier and a catalyst layer directly formed on a surface of the metal carrier, said catalyst layer comprising an exhaust gas purifying catalyst and silicon oxide, wherein the weight ratio between the exhaust gas purifying catalyst and silicon oxide in the catalyst layer is in the range of 10:90 to 40:60, and the exhaust gas purifying catalyst in the catalyst layer comprises at

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least one noble metal selected from the group consisting of platinum, palladium and rhodium, and activated alumina **(See Abstract in each reference – used only palladium from the claimed list of noble metal).**

7. Claims 1, 2, 4, 5, 7 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by **Tsuchitani et al. (US Patent NO. 5,756,057).**

Regarding Claim 1, Tsuchitani et al. reference discloses an exhaust gas purifying catalyst-supported member comprising a metal carrier **(Column 13, Line 5 and Column 9, Lines 53-63)** and a catalyst layer directly formed on a surface of the metal carrier, said catalyst layer comprising an exhaust gas purifying catalyst and silicon oxide, wherein the weight ratio between the exhaust gas purifying catalyst and silicon oxide in the catalyst layer is in the range of 10:90 to 40:60, and the exhaust gas purifying catalyst in the catalyst layer consisting of at least one noble metal selected from the group consisting of platinum, palladium and rhodium, and activated alumina **(Column 13, Lines 5-20 – 0.5 to 30 g of palladium and 0.05 to 50 g of silicon oxide).**

Regarding Claim 2, Tsuchitani et al. reference discloses the exhaust gas purifying catalyst-supported member as claimed in claim 1, wherein the weight ratio between the exhaust gas purifying catalyst and silicon oxide in the catalyst layer is in the range of 20:80 to 40:60 **(Column 13, Lines 5-20 – 0.5 to 30 g of palladium and 0.05 to 50 g of silicon oxide).**

Regarding Claim 4, Tsuchitani et al. reference discloses the exhaust gas purifying catalyst-supported member as claimed in claim 1, wherein the metal carrier is

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a metal plate selected from the group consisting of a stainless steel plate, a stainless steel tube and a stainless steel corrugated plate (**Column 9, Line 53-Column 10, Line 5**).

Regarding Claim 5, Tsuchitani et al. reference discloses the exhaust gas purifying catalyst-supported member as claimed in claim 1, wherein the weight ratio between the noble metal and the activated alumina in the exhaust gas purifying catalyst layer is in the range of 1:1 to 1:35 (**Column 13, Lines 5-20 – 10 to 300 g activated alumina and 0.5 to 30 g of palladium**).

Regarding Claim 7, Tsuchitani et al. reference discloses the exhaust gas purifying catalyst-supported member as claimed in claim 1 wherein a peel ratio of the catalyst layer is less than 37.5 wt% (**inherency**).

Regarding Claim 8, Tsuchitani et al. reference discloses the exhaust gas purifying catalyst-supported member as claimed in claim 1 wherein a peel area of the catalyst layer is 1/5 to 1/10 less than a peel area of a catalyst layer of an exhaust gas purifying catalyst support member which includes a silicon dioxide undercoating and a catalyst layer that is substantially free from silicon dioxide (**inherency**).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Tsuchitani et al. (US Patent No. 5,756,057) in view of Homeier et al. (US Patent No. 4,759,918).**

Regarding Claim 6, Tsuchitani et al. reference discloses the exhaust gas purifying catalyst-supported member as claimed in claim 1 except for the catalyst support member being a mesh filter. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a metal mesh filter for solving the diesel emission problem (**Homeier et al. – Column 1, Lines 27-31**).

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUY-TRAM NGUYEN whose telephone number is (571)270-3167. The examiner can normally be reached on MON- THURS: 6:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Griffin can be reached on 571-272-1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HTN

10/29/08

/Walter D. Griffin/

Supervisory Patent Examiner, Art Unit 1797